

District I
1625 N. French Dr. Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr. Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Form C-144
June 1, 2004

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

For drilling and production facilities, submit to appropriate NMOCD District Office.
For downstream facilities, submit to Santa Fe office

Pit or Below-Grade Tank Registration or Closure

Is pit or below-grade tank covered by a "general plan"? Yes ☐ No ☒

Type of action Registration of a pit or below-grade tank ☐ Closure of a pit or below-grade tank ☒

Operator <u>McElvann Oil & Gas Properties, Inc</u> Telephone <u>303-893-0933</u> Fax <u>308</u> e-mail address <u>DebbyP@McElvann.com</u>		
Address <u>1050 17th Street, Suite 1800, Denver, CO 80265</u>		
Facility or well name <u>Cougar Com 33 1M</u> API # <u>30-039-26669</u> U/L or Qtr/Qtr <u>M</u> Sec <u>33</u> T <u>26N</u> R <u>2W</u>		
County <u>Rio Arriba</u> Latitude <u>36 26' 11" N</u> Longitude <u>107 03' 41" W</u> NAD 1927 ☒ 1983 ☐		
Surface Owner Federal ☐ State ☒ Private ☐ Indian ☐		
Pit Type Drilling ☒ Production ☐ Disposal ☐ Workover ☐ Emergency ☐ Lined ☒ Unlined ☐ Liner type Synthetic ☒ Thickness <u>12</u> mil Clay ☐ Pit Volume 18,701 bbl	Below-grade tank Volume <u> </u> bbl Type of fluid <u> </u> Construction material <u> </u> Double-walled, with leak detection? Yes ☐ If not, explain why not <u> </u>	
Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water)	Less than 50 feet 50 feet or more, but less than 100 feet 100 feet or more	(20 points) (10 points) (0 points) 0
Wellhead protection area (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources)	Yes No	(20 points) (0 points) 0
Distance to surface water (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses)	Less than 200 feet 200 feet or more, but less than 1000 feet 1000 feet or more	(20 points) (10 points) (0 points) 0
Ranking Score (Total Points)		

If this is a pit closure: (1) Attach a diagram of the facility showing the pit's relationship to other equipment and tanks (2) Indicate disposal location (check the onsite box if you are burying in place) onsite ☒ offsite ☐ If offsite, name of facility (3) Attach a general description of remedial action taken including remediation start date and end date (4) Groundwater encountered No ☒ Yes ☐ If yes, show depth below ground surface ft and attach sample results (5) Attach soil sample results and a diagram of sample locations and excavations

Additional Comments	RCUD MAY 15 '08
The Cougar Com 33 1M was closed on 5/4/2008	OIL CONS. DIV.
5,000 ppm TPH closure standard approved by Brandon Powell on 4/29/08	DIST. 3
EnviroTech Labs report is attached	

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.

Date 5/12/2008

Printed Name/Title Deborah Powell/Eng Tech Supervisor Signature Deborah Powell

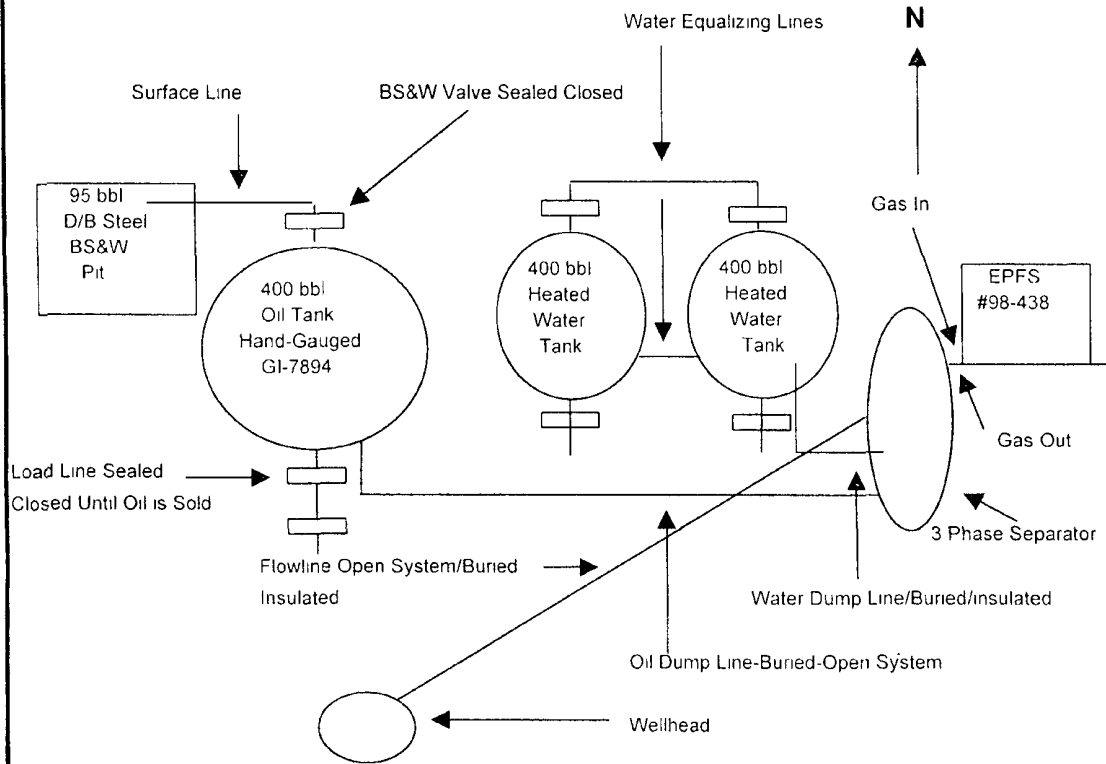
Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

Approval Deputy Oil & Gas Inspector,
Printed Name/Title District #3

Signature Bob Powell

Date MAY 30 2008

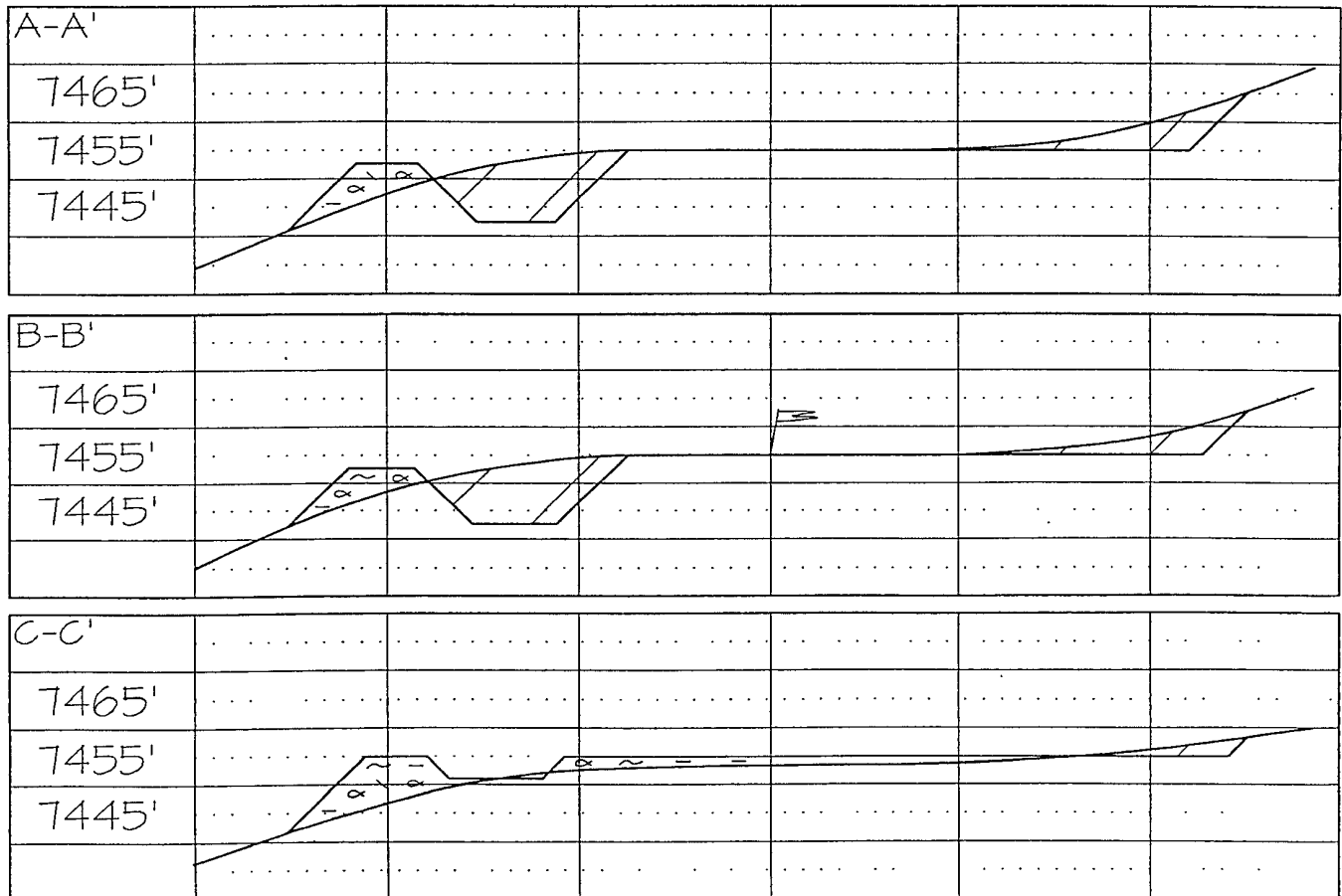
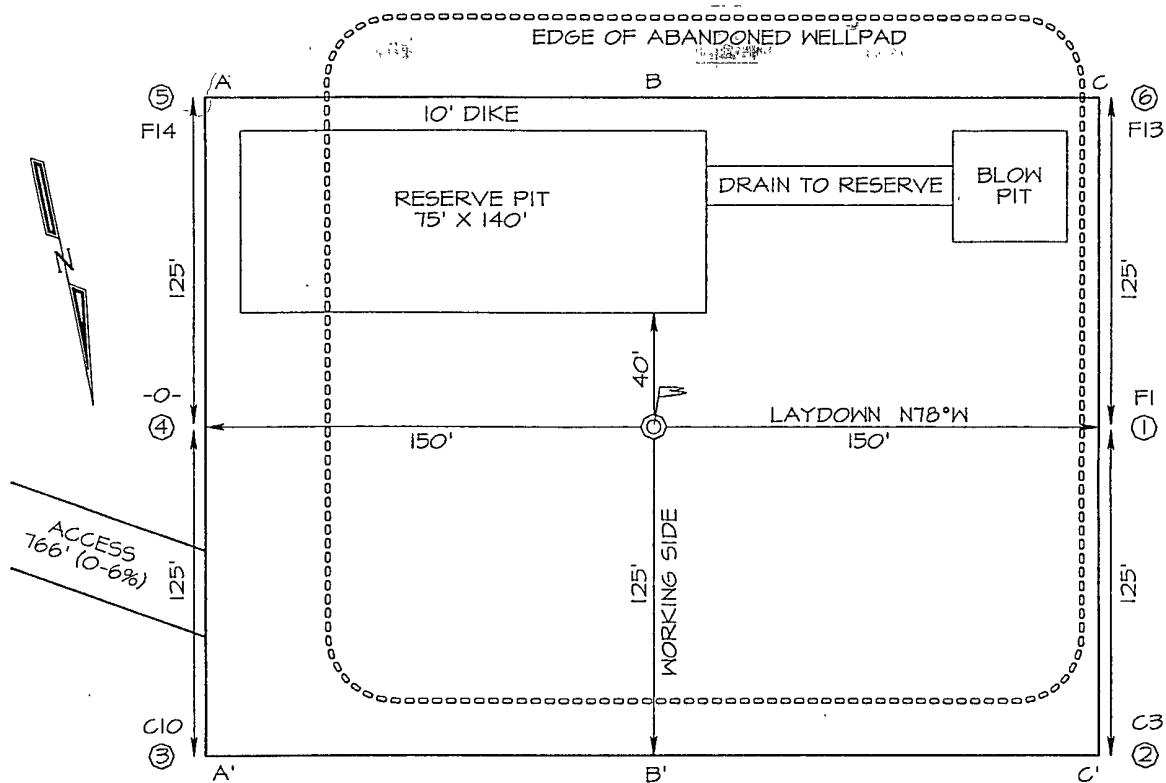
LOCATION DIAGRAM



Reserve Pit
75' X 140' X 10'

Company	McElvain Oil & Gas
Well	Cougar Com 33 #1M
Location	M Sec 33, T26N R2W
County	Rio Arriba
Lease	Fee
Date	Apr-02
State	New Mexico
API	30-039-26669

McELVAIN OIL & GAS PROPERTIES COUGLAR COM 33 #1M
 795' F2, 850' FWL, SECTION 33, T26N, R12W, NMPM
 RIO ARriba COUNTY, NM, GROUND ELEVATION: 7455'



ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

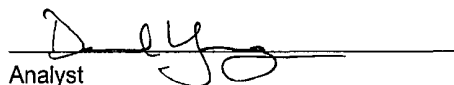
Client:	McElvain	Project #:	06039-0009
Sample ID:	Composite #1	Date Reported:	04-16-08
Laboratory Number:	44980	Date Sampled:	04-14-08
Chain of Custody No:	4211	Date Received:	04-14-08
Sample Matrix:	Soil	Date Extracted:	04-15-08
Preservative:	Cool	Date Analyzed:	04-15-08
Condition:	Intact	Analysis Requested:	8015 TPH

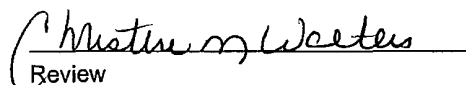
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	52.5	0.2
Diesel Range (C10 - C28)	668	0.1
Total Petroleum Hydrocarbons	720	0.2

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Cougar Com 33 #1M.**


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Client:	McElvain	Project #:	06039-0009
Sample ID:	Composite #2	Date Reported:	04-16-08
Laboratory Number:	44981	Date Sampled:	04-14-08
Chain of Custody No:	4211	Date Received:	04-14-08
Sample Matrix:	Soil	Date Extracted:	04-15-08
Preservative:	Cool	Date Analyzed:	04-15-08
Condition:	Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	279	0.2
Diesel Range (C10 - C28)	2,890	0.1
Total Petroleum Hydrocarbons	3,170	0.2

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Cougar Com 33 #1M.**

Analyst

Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

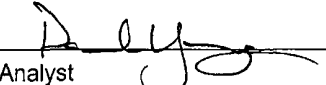
Client:	McElvain	Project #:	06039-0009
Sample ID:	Wall Composite	Date Reported:	04-16-08
Laboratory Number:	44982	Date Sampled:	04-14-08
Chain of Custody No:	4211	Date Received:	04-14-08
Sample Matrix:	Soil	Date Extracted:	04-15-08
Preservative:	Cool	Date Analyzed:	04-15-08
Condition:	Intact	Analysis Requested:	8015 TPH

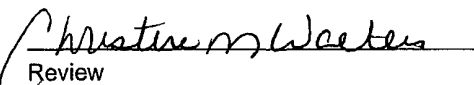
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	1,810	0.1
Total Petroleum Hydrocarbons	1,810	0.2

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Cougar Com 33 #1M.**


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	04-15-08 QA/QC	Date Reported:	04-16-08
Laboratory Number:	44973	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	04-15-08
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	I-Cal RF	C-Cal RF	% Difference	Accept Range
Gasoline Range C5 - C10	05-07-07	1.0036E+003	1.0040E+003	0.04%	0 - 15%
Diesel Range C10 - C28	05-07-07	9.9986E+002	1.0003E+003	0.04%	0 - 15%

Blank Conc. (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	ND	0.2
Diesel Range C10 - C28	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept Range
Gasoline Range C5 - C10	ND	ND	0.0%	0 - 30%
Diesel Range C10 - C28	4.4	4.4	0.0%	0 - 30%

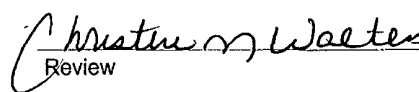
Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept Range
Gasoline Range C5 - C10	ND	250	250	100%	75 - 125%
Diesel Range C10 - C28	4.4	250	248	97.6%	75 - 125%

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: QA/QC for Samples 44973 and 44980 - 44982.

Analyst 

Review 

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	McElvain	Project #:	06039-0009
Sample ID:	Composite #1	Date Reported:	04-16-08
Laboratory Number:	44980	Date Sampled:	04-14-08
Chain of Custody:	4211	Date Received:	04-14-08
Sample Matrix:	Soil	Date Analyzed:	04-15-08
Preservative:	Cool	Date Extracted:	04-15-08
Condition:	Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	1.6	0.9
Toluene	7.2	1.0
Ethylbenzene	11.1	1.0
p,m-Xylene	84.5	1.2
o-Xylene	30.3	0.9
Total BTEX	135	

ND - Parameter not detected at the stated detection limit.

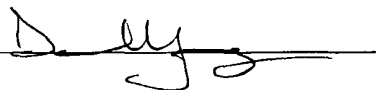
Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	98.0 %
	1,4-difluorobenzene	98.0 %
	Bromochlorobenzene	98.0 %

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

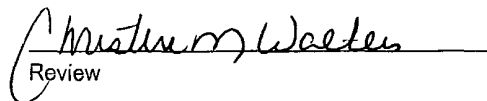
Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: Cougar Com 33 #1M.

Analyst



Review



ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	McElvain	Project #:	06039-0009
Sample ID:	Composite #2	Date Reported:	04-16-08
Laboratory Number:	44981	Date Sampled:	04-14-08
Chain of Custody:	4211	Date Received:	04-14-08
Sample Matrix:	Soil	Date Analyzed:	04-15-08
Preservative:	Cool	Date Extracted:	04-15-08
Condition:	Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	2.6	0.9
Toluene	33.3	1.0
Ethylbenzene	67.1	1.0
p,m-Xylene	568	1.2
o-Xylene	167	0.9
Total BTEX	838	

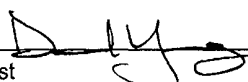
ND - Parameter not detected at the stated detection limit.

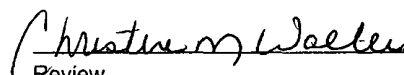
Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	99.0 %
	1,4-difluorobenzene	99.0 %
	Bromochlorobenzene	99.0 %

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: Cougar Com 33 #1M.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	McElvain	Project #:	06039-0009
Sample ID:	Wall Composite	Date Reported:	04-16-08
Laboratory Number:	44982	Date Sampled:	04-14-08
Chain of Custody:	4211	Date Received:	04-14-08
Sample Matrix:	Soil	Date Analyzed:	04-15-08
Preservative:	Cool	Date Extracted:	04-15-08
Condition:	Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	ND	0.9
Toluene	ND	1.0
Ethylbenzene	ND	1.0
p,m-Xylene	ND	1.2
o-Xylene	ND	0.9
Total BTEX	ND	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	97.0 %
	1,4-difluorobenzene	97.0 %
	Bromochlorobenzene	97.0 %

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

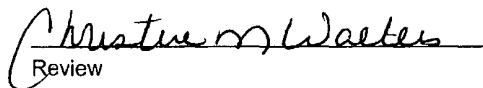
Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: Cougar Com 33 #1M.

Analyst



Review



ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	N/A	Project #:	N/A
Sample ID:	04-15-BTEX QA/QC	Date Reported:	04-16-08
Laboratory Number:	44973	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	04-15-08
Condition:	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	I-Cal RF	C-Cal RF	%Diff	Blank Conc	Detect Limit
		Accept Range 0 - 15%			
Benzene	5.5330E+007	5.5441E+007	0.2%	ND	0.1
Toluene	4.7374E+007	4.7469E+007	0.2%	ND	0.1
Ethylbenzene	3.6576E+007	3.6650E+007	0.2%	ND	0.1
p,m-Xylene	7.2687E+007	7.2833E+007	0.2%	ND	0.1
o-Xylene	3.5372E+007	3.5443E+007	0.2%	ND	0.1

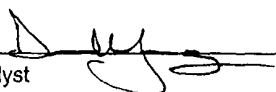
Duplicate Conc (ug/Kg)	Sample	Duplicate	%Diff	Accept Range	Detect Limit
Benzene	ND	ND	0.0%	0 - 30%	0.9
Toluene	6.3	6.0	4.8%	0 - 30%	1.0
Ethylbenzene	4.2	4.2	0.0%	0 - 30%	1.0
p,m-Xylene	14.4	14.3	0.7%	0 - 30%	1.2
o-Xylene	3.3	3.2	3.0%	0 - 30%	0.9

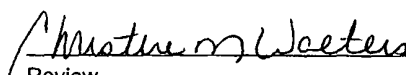
Spike Conc (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Range
Benzene	ND	50.0	49.5	99.0%	39 - 150
Toluene	6.3	50.0	54.3	96.4%	46 - 148
Ethylbenzene	4.2	50.0	53.6	98.9%	32 - 160
p,m-Xylene	13	100	108	95.6%	46 - 148
o-Xylene	3.3	50.0	52.3	98.1%	46 - 148

ND - Parameter not detected at the stated detection limit.

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.
Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: QA/QC for Samples 44973 and 44980 - 44982.

Analyst 

Review 
Christine M. Woeters

CHAIN OF CUSTODY RECORD

4211

Client: McElvain			Project Name / Location: Cayor Corn 33 #1M			ANALYSIS / PARAMETERS														
Client Address:			Sampler Name: G. Crabtree			TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	PAH	TPH (418.1)					Sample Cool	Sample Intact
Client Phone No.:			Client No.: 06039-0009																	
Sample No./ Identification	Sample Date	Sample Time	Lab No.	Sample Matrix	No./Volume of Containers	Preservative H ₂ O ₂ /HNO ₃														
Composite #1	4/14/08	1150	44980	Soil	1-4oz		✓	✓											✓	✓
Composite #2	✓	1205	44981	✓	✓		✓	✓											✓	✓
Well composite	✓	1220	44982	✓	✓		✓	✓											✓	✓
Relinquished by: (Signature) [Signature]						Date 4/14/08	Time 1725	Received by: (Signature) [Signature]						Date 4/14/08	Time 1725					
Relinquished by: (Signature)								Received by: (Signature)												
Relinquished by: (Signature)								Received by: (Signature)												

ENVIROTECH INC.
 5796 U.S. Highway 64 • Farmington, New Mexico 87401 • (505) 632-0615